INFORMATION SHEET

ORDER NO. ___
CITY OF VISALIA
WASTEWATER TREATMENT FACILITY
TULARE COUNTY

GENERAL INFORMATION

The City of Visalia (City or Discharger) applied for a permit renewal to discharge disinfected secondary treated municipal wastewater from the Visalia Water Conservation Plant, a wastewater treatment facility (WWTF), under the National Pollutant Discharge Elimination System (NPDES). The WWTF provides municipal sewerage services to 96,000 residents in the city of Visalia and the unincorporated community of Goshen. The City discharges effluent to either Mill Creek, a water of the United States, to a 900-acre, City-owned walnut orchard (Use Area) immediately south of the WWTF, and to onsite disposal ponds. The City began discharging most of its effluent to Mill Creek in 1996. The WWTF vicinity is depicted in Attachment A. The WWTF, including discharge to Mill Creek and to land, is currently regulated by Waste Discharge Requirements (WDRs) Order No. 97-061 (NPDES Permit No. CA0079189).

In general, the current Order's treatment requirements include:

- Minimum 85% removal of 5-day biochemical oxygen demand (BOD_5) and total suspended solids (TSS) or a maximum monthly average 30 mg/L each, whichever is more stringent
- Maximum settleable solids of 0.02 ml/L
- Maximum monthly flow-weighted average electrical conductivity at 25° (EC) of 1,000 µmhos/cm or 500 µmhos/cm over source water, whichever is less
- Minimum pH of 6.0 and maximum pH of 9.0

The current Order does not prescribe a residual chlorine effluent limitation nor require monitoring of effluent for toxicity. It does require groundwater monitoring on a regional basis to evaluate the extent of groundwater degradation for salinity caused by the City's discharge as discussed later.

The WWTF has a design capacity of 22 million gallons per day (mgd) and currently treats a monthly average flow of about 12 mgd. The WWTF has a septage receiving station and consists of headworks, four primary and four secondary clarifiers, four plastic media trickling filters, four aeration basins, and four chlorine contact basins. Six anaerobic sludge digesters process sludge from the primary clarifiers and waste activated sludge, and discharge to two unlined sludge pits used to settle solids from the supernatant. The solids are discharged to thirty unlined sludge drying beds, about 16 acres total. The supernatant is pumped from near the surface of the pits and returned to the headworks. The WWTF process return flows consist of gravity belt thickener filtrate, scum from the secondary clarifiers, supernatant from the digested sludge pits, decant from the sludge drying beds, and septage hauler rinse water. These flows amount to about two percent of the WWTF's inflow and enter the WWTF through wet wells prior to the headworks. The City characterizes influent quality from samples collected from these wet wells. The City's current method of collecting composite influent and effluent samples is not automated to be flow-proportioned. The WWTF's process flow diagram is depicted in Attachment B.

The Discharger's RWD for NPDES permit renewal indicates the WWTF produces an average of approximately 8,275 tons of dried sludge annually. WWTF sludge is dried for approximately 60 to 90 days and then transferred to an unlined onsite stockpile area for up to three years. Twice yearly, dry stockpiled sludge is discharged to farmland within the City of Visalia Municipal Airport for use as a soil

amendment pursuant to Order No. 2004-0012-DWQ, *General Waste Discharge Requirements for the Discharge of Biosolids to Land for use as a Soil Amendment in Agricultural, Silvicultural, Horticultural, and Land Reclamation Activities*.

The City adopted an Environmental Impact Report (EIR) in 1992 for WWTF expansion in accordance with the California Environmental Quality Act (CEQA) and the State CEQA guidelines. The Regional Water Board considered the EIR as required by Title 14, CCR, Section 15096, and concurred with its findings when it issued the current Order. The City began its expansion in 1993 to increase capacity from 12.5 to 20 mgd. The City's EIR discussed impacts from expanding the plant to a maximum flow of 20 mgd. The City anticipated its population to grow at a rate that would require the WWTF to treat 20 mgd by year 2000. By the mid-1990, the City's realized growth rate was much less than anticipated. Accordingly, the City decided to expand the WWTF capacity to 20 mgd in phases. The recently expanded WWTF headworks contain five pumps to accommodate a total instantaneous inflow of 40 mgd. There is space to add another pump to bring the ultimate long-term instantaneous inflow capacity to 55 mgd. The City requested bid proposals for its continued treatment expansion to 20 mgd capacity that includes one additional primary clarifier, secondary clarifier, chlorine contact basin, and digester. The City completed the expansion in November 2003.

By letter dated 7 February 2003, the City indicated that the design BOD_5 loading for the WWTF was based on its 1995 Master Plan Update estimate rather than more recently observed data in self-monitoring reports, resulting in an "over design" of capacity. The City re-evaluated the WWTF capacity in September 2002 and indicated that the WWTF as designed would have a capacity of 22 mgd, in lieu of the 20 mgd capacity previously reported. By letter dated 7 January 2004, the Discharger requested the State Water Board to reclassify the WWTF from a Class IV to a Class V facility. The State Water Board reclassified the WWTF to a Class V facility on 13 May 2004.

Pretreatment

The City has an Industrial Pretreatment Program (IPP) pursuant to 40 CFR 403 with 17 permitted significant industrial users (SIUs), seven of which are federal categorical dischargers. The Regional Water Board approved the City's IPP by Notice of Decision dated 26 May 1992. Table 1 below lists the City's SIUs and identifies which are federal categorical dischargers.

TABLE 1
SIGNIFICANT INDUSTRIAL USERS (SIUs)

Industry	Reason for SIU Classification	Federal Categorical Pretreatment Standard or Local Limit
Advanced Food Products	Discharge volume and conventional pollutant loadings	Local Limits
Basic Chemical Solutions	Categorically regulated	40 CFR 442
Everything Metal Imaginable	Categorically regulated	40 CFR 464 Subpart B
Everything Metal Imaginable	Categorically regulated	40 CFR 464 Subpart B
Heller Performance Polymers	Reasonable potential to adversely impact the WWTF	Local Limits

TABLE 1
SIGNIFICANT INDUSTRIAL USERS (SIUs)

Industry	Reason for SIU Classification	Federal Categorical Pretreatment Standard or Local Limit
Josten's Printing and Publishing	Reasonable potential to adversely impact the WWTF	Local Limits
Kawneer	Categorically regulated	40 CFR 433
Kraft Foods Inc.	Discharge volume and conventional pollutant loadings	Local Limits
Mission Uniform	Discharge volume and conventional pollutant loadings	Local Limits
Pacific Western Eagle (Formerly Pac. Western Ext. Plastics)	Reasonable potential to adversely impact the WWTF	Local Limits
Pregis Innovative Packaging (Formerly PACTIV)	Reasonable potential to adversely impact the WWTF	Local Limits
Reynolds Food Packaging	Reasonable potential to adversely impact the WWTF	Local Limits
Sequoia Walnut Growers	Reasonable potential to adversely impact the WWTF	Local Limits
Southern California Edison	Reasonable potential to adversely impact the WWTF	Local Limits
Visalia Custom Chrome	Categorically regulated	40 CFR 433
Visalia Manufacturing	Categorically regulated	40 CFR 464 Subparts A and D
Voltage Multipliers Inc.	Categorically regulated	40 CFR 469

Pretreatment Compliance History

Prior to 2000, the City was in chronic noncompliance of its effluent limitation for EC, primarily due to industrial discharges of highly saline waste. The City's IPP was ineffective in preventing high EC industrial wastewater from entering the WWTF. As the WWTF is unable to remove salt, pass through of salt occurred. Because of chronic violations of the City's effluent limitation for EC and the resulting adverse impact to groundwater for EC from percolated effluent, the Regional Water Board adopted, along with the current Order, Cease and Desist Order No. 97-062 (CDO). The CDO required the Discharger to submit a report by 1 May 1997 that: 1) evaluated the EC contribution to the WWTF effluent from each SIU; 2) determined how much each SIU may reasonably reduce its EC contribution to the WWTF; and 3) identified the measures employed by SIUs to achieve the necessary EC reduction to bring the WWTF discharge into compliance. The CDO further required the Discharger to revise its Industrial User Permits, and its pretreatment ordinance as necessary, to implement the listed EC goals and schedules by 1 December 1997. The CDO required the City to comply with its effluent limitation for EC by 15 April 1999. The City did not meet this deadline, but determined that the primary discharger of high EC wastewater was an olive processor (Musco Olive Products South). The City continued to work with its industrial dischargers and finally achieved compliance when the olive

processor relocated to its main plant rather than comply with City's IPP[1]. Since about mid-2000, the City has consistently complied with its effluent EC limitation.

The CDO also required the City to investigate the extent of groundwater degradation for salinity caused by its discharge and implement corrective measures to assure compliance with the current Order's Discharge Prohibition A.4, "Discharge of wastes that cause taste or odor producing substances, chemicals…in surface or groundwater to reach concentrations that create nuisance or adversely affect beneficial uses is prohibited," and Receiving Water Limitation E.1 concerning groundwater, "Contain waste constituents in concentrations greater than background water quality, except for the minerals measured indirectly by EC. The EC shall not exceed an incremental increase of 15 µmhos/cm over any five year period, or a maximum of 900 µmhos/cm, whichever is less," in accordance with the following tasks and time schedule:

1. By 15 May 1997, submit a work plan to assess the extent of groundwater pollution.
2. By 20 January 1998, submit a report evaluating the work described in the work plan.
3. Beginning March 1998, submit monthly progress reports and continuing until all corrective measures are completed.
4. By 3 February 1999, complete all measures to control the migration of the pollutants.

The most recent groundwater monitoring data is summarized in the Discharger's *Groundwater Monitoring Program Fall 2004 Semi-Annual Data Transmittal* (Fall 2004 Report) and indicates a significant reduction in the high salinity groundwater identified in the Discharger's 30 January 1998 Report. MW-G, at the southeast end of the WWTF, initially showed the greatest impact with EC of 1,300 µmhos/cm and chloride above 120 mg/L. Groundwater at MW-G now has EC and chloride of about 900 µmhos/cm and 44 mg/L, respectively. Similar reductions in salt constituent concentrations occurred in MW-J1, MW-K1, and MW-M. It appears that regional groundwater pumping of agricultural wells is achieving what the Discharger proposed to implement pursuant to the CDO.

Recent Violations

Soon after the City discontinued mainly relying on onsite disposal ponds for effluent disposal, it began to allow local haulers of restaurant grease trap waste to discharge this waste to one of the dry disposal ponds. Haulers would drain their grease loads through their truck's hose. Discharge location depended on weather conditions. During the rainy season, haulers would discharge close to the pond's perimeter access road. During the remainder of the year, haulers would discharge as they drove their trucks around the dry pond bottom. In other words, there was no attempt to discharge this waste in a controlled, uniform fashion. Grease trap waste is characterized by high concentrations of organic and nutrient waste constituents. Due to the high organic strength character of grease trap waste, its discharge to land under ambient conditions may cause waste constituents to occur in groundwater in concentrations that exceed water quality objectives. Accordingly, grease trap waste is a designated

[1] Musco Olive Products consolidated its operations in Tracy, San Joaquin County, and has yet to comply with the waste discharge requirements that regulate that plant's discharges. It has been subjected to a series of enforcement actions, including administrative civil liability, by the Regional Water Board.

waste as defined in California Water Code (CWC) Section 137173(b). Discharge Prohibition A.3 of the current Order prohibits the discharge of designated waste at the WWTF.

The City's practice of grease trap waste discharge was documented during a Regional Water Board staff inspection on 1 June 2001. Consequently, the Discharger was issued a Notice of Violation on 2 August 2001 for this practice. In response, the Discharger explained it began this practice because the City's producers of grease trap waste had no other recourse for disposal when Tulare County's lined landfills ceased accepting grease trap waste.

In late 2001, the Discharger characterized grease trap waste from three haulers for metals, nitrogen compounds, and total organic carbon. The waste contained concentrations of aluminum, barium, copper, iron, lead, mercury, and zinc well below "hazardous waste" levels as defined in Chapter 11, Division 4.5, Title 22, CCR. However, the waste is characterized by very high organic nitrogen and carbon content, as indicated in Table 2 (all concentrations in mg/L).

TABLE 2
GREASE TRAP WASTE CHARACTERIZATION

Date Sampled	BOD_5	Total Organic Carbon	Total Nitrogen (all TKN)
11/27/01	18,000	3,000	230
12/11/01	26,000	1,800	1,000
12/13/01	4,300	2,200	130

The Discharger continued accepting grease trap waste in defiance of the NOV until issued a second NOV on 7 March 2002. The second NOV directed the Discharger to immediately cease discharging grease trap waste, and instructed the Discharger to submit a RWD specific for this discharge if it wished to continue accepting this waste. By letter dated 12 March 2002, the City indicated it no longer accepted grease trap waste at the WWTF for land disposal. The 7 March 2002 NOV also noted the Discharger was in violation of Discharge Specification B.10 for not having sufficient warning signs at the effluent outfall to Mill Creek and the section of Mill Creek where there is easy public access along Avenue 288 and Road 68. The City, in its response, provided a photograph of its new signs along Mill Creek to comply with Discharge Specification B.10.

Sludge Handling Facilities

The City discharges sludge from its digesters to two unlined sludge pits. The City pumps settled solids from the unlined sludge pits to 30 unlined sludge drying beds and supernatant back to the headworks. The City asserts its unlined sludge drying beds "self-sealed" through use; however, the City also reports that the "sealing" surface layer in the unlined sludge drying beds is often removed when scraping out the dried sludge.

Evidence from other WWTFs in the region indicate that unlined sludge beds do not "self seal" to the degree necessary to provide an effective barrier to preclude the release of waste constituents in sludge leachate to soil. Once released to soil, these waste constituents, if not attenuated in the soil profile, have

the potential to cause groundwater degradation and pollution. The following are documented examples of the impact to soil and groundwater from the use of unlined sludge drying beds.

> The City of Merced discharges sludge and anaerobic digester supernatant to unlined beds at its municipal WWTF. Merced contended that, in addition to beds' "self sealing" properties, a layer of natural hardpan at the WWTF precluded waste constituents in sludge leachate and supernatant from impacting groundwater. Groundwater in the vicinity of the sludge drying beds occurs between 5 to 11 feet below ground surface (bgs). Order No. 5-00-246 for Merced's WWTF required groundwater passing under the sludge drying beds be characterized and, if degraded or polluted, modifications to be implemented (e.g., line beds or install mechanical dewatering equipment). Monitoring data shows groundwater polluted for nitrate and bacteria, and degraded for barium, total organic carbon, and salt constituents. Merced is in the process of soliciting proposals from engineering consultants on a plan of action to modify the WWTF's sludge handling practices and to remediate polluted groundwater.
>
> The City of Bakersfield dewaters sludge from its Wastewater Treatment Plant No. 3 (Plant 3) in unlined sludge drying beds. Bakersfield contended that the beds "self seal" and do not impact the soil or groundwater. To confirm this assumption, Bakersfield recently monitored the quality of soils underlying the sludge drying beds. Soil samples were collected from 4 and 10 feet bgs. The results document that waste constituents have entered the soil profile and have in places increased with depth. Impacts to groundwater from these waste constituents have not yet been determined. Bakersfield will soon install groundwater monitoring wells in the vicinity of the sludge drying beds to evaluate the extent to which groundwater has been impacted by the sludge drying beds.
>
> The City of Reedley has been investigating groundwater polluted by nitrate and salts at its WWTF since the early 1990s. Reedley determined the source of pollution was the WWTF's unlined sludge drying beds. In 1996, Reedley installed a centrifuge sludge dewatering unit and abandoned use of the sludge drying beds. Reedley has identified impacts to groundwater from waste constituents released from the sludge drying beds to depths of nearly 60 feet. Reedley will soon implement a pump-and-treat system to contain and remediate the plume of groundwater pollution.

These examples indicate there is reasonable potential for groundwater to be polluted by the City of Visalia's use of unlined sludge handling facilities at its WWTF, especially considering the following site conditions.

Hydrology, Geology and Soils

The WWTF lies within the 100-year flood hazard, according to maps published by the Federal Emergency Management Agency, but is constructed above the 100-year flood plain elevation. Surface topography indicates a southwest slope of 1.2 feet per 1,000 feet. The Discharger retains storm water runoff on the WWTF property and either pumps the runoff to the headworks or directs the runoff to dedicated unlined storm water retention ponds.

Soils in the WWTF area are moderately permeable alluvial deposits originating in the Sierra Nevada Mountains to the east. The surface soil is classified as Tagus fine sandy loam. The geology of the Visalia area generally consists of deep underlying metamorphic and granitic rock overlain by hundreds of feet of alluvium. The first 100 feet below ground surface (bgs) contains interbedded sand zones underlain by relatively thin saturated beds of sand mixed with clay, clayey silt, and silt that extends to depths of 240 to 275 feet bgs. A highly impermeable and regionally extensive clay layer (identified as the E-clay) lies beneath these soils and is approximately 20 feet thick. Stratigraphic and water quality data indicate the E-clay to be the first effective aquitard protecting the high quality underlying groundwater.

In 1996, the City began disposing most of its effluent to Mill Creek, an ephemeral stream originating near Lake Kaweah in the foothills east of the City. Mill Creek conveys flood releases from Lake Kaweah, and occasionally delivers irrigation supply water from Lake Kaweah or the Friant-Kern Canal. As Mill Creek passes through the City, it collects storm water along with two minor NPDES discharges consisting of non-contact cooling water from the Visalia Medical Clinic (WDRs Order No. 97-119, NPDES No. CA0080900) and from Kraft, Inc. (WDRs Order No. 97-122, NPDES No. CA0081256). Even with the various inflows, Mill Creek is usually dry upstream of the WWTF, and hence, is an effluent-dominant water. When the City's discharge is the sole source of water in Mill Creek, effluent will extend some 5000 feet upstream of Discharge 001 due to Mill Creek's gradual slope. This "backwater" condition does not qualify as upstream water. Mill Creek's alignment in reaches containing effluent parallels several major roads and is accessible to the public.

The City discharges to Mill Creek year-round except for about five weeks in the summer when Kaweah Delta Water Conservation District (District) conducts routine maintenance of the Mill Creek channel to maintain flood capacity or when Mill Creek capacity is limited during storm water, flood release, or irrigation delivery periods. From 2001 to 2005, the City discharged to Mill Creek 71% of the days. The City owns 160 acres about four miles west of the WWTF, which is occupied by four percolation ponds constructed for groundwater recharge. About one mile downstream along Mill Creek from Discharge 001, a diversion structure within Mill Creek allows the District to divert effluent-dominant Mill Creek flows to the City's percolation ponds. During most of the year, effluent-dominant flows in Mill Creek are diverted to these percolation ponds. Water not directed to the percolation ponds flows south in the Mill Creek channel and may occasionally reach Cross Creek several miles downstream. The District indicates water in Cross Creek occasionally flows to the Tulare Lake Bed, but that if the City's effluent reaches Cross Creek, it would likely flow only a short distance due to the size and dryness of the creek bed.

The California Department of Fish and Game (DFG) reports that Mill Creek did not historically support a warm water fishery. However, as Mill Creek conveys WWTF effluent effectively year-round, it has the potential to support warm freshwater aquatic habitat.

Land Use

Land use in the WWTF vicinity is primarily agricultural, and includes about 20 dairies within a couple miles north, west, and south of the WWTF. Residences in the area paralleling effluent-dominant reaches of Mill Creek are sparse and generally restricted to agricultural homesteads. Fodder crops of furrow-irrigated corn and border strip-irrigated alfalfa are the primary crops and irrigation methods, according

to DWR land use data. Farmers along Mill Creek with riparian water rights use creek water, when available, as an irrigation supply. The primary source of water in Mill Creek is the City's effluent, which meets the criteria of Disinfected Secondary-23 recycled water as defined in Title 22, California Code of Regulations (CCR), Section 60301.225. Accordingly, use of effluent to irrigate fodder crops is consistent with Title 22 recycling criteria. Owners of dairies also irrigate much of the land in the region with dairy wastewater. It is unknown the extent to which area crops are irrigated with a combination of effluent-dominant Mill Creek flows and dairy wastewater.

Groundwater

Regional first-encountered groundwater flows west-southwesterly and occurs about 80 to 90 feet bgs, according to information in *Lines of Equal Depth to Water in Wells, Unconfined Aquifer*, published by DWR in Spring 2000. The E-clay exists about 240 to 275 feet bgs and separates groundwater of marginal quality from high quality groundwater found beneath the E-clay. The City has identified the area as containing three different aquifers: (1) the first-encountered, shallow groundwater, (2) the upper aquifer resting on top of the E-clay where the majority of the water supply wells in the area are completed, and (3) the lower aquifer found beneath the E-clay.

The Discharger monitors groundwater quality in the WWTF vicinity through an extensive network of groundwater monitoring wells. In 1986, the Discharger installed five groundwater monitoring wells (MW-A, MW-B, MW-C, MW-D, and MW-E) to depths from 30 to 60 feet bgs. At that time, the Discharger used the disposal ponds to dispose of about half the effluent flow, causing groundwater to mound beneath the ponds. With the lowering of the regional groundwater table that occurred throughout the San Joaquin Valley from the 1987 - 1992 drought, all but MW-B have been dry from 1992 and MW-B has been dry since about 1993. In 1992, the Discharger installed MW-F, MW-G, and MW-H, upgradient, on-site, and downgradient of the WWTF. These wells were installed to about 100 to 110 feet bgs. MW-F, about one mile northeast of the WWTF, is adjacent to a ditch that conveys surface water for irrigation. Water quality data from this well indicates that it extracts high quality percolated surface water, which is not representative of regional groundwater. A monitoring well at a more appropriate location to establish regional background groundwater quality has not yet been installed.

To comply with the CDO No. 97-062, the Discharger installed ten additional groundwater monitoring wells in November and December 1997. At three locations, the Discharger installed nested wells to obtain samples of first-encountered groundwater, groundwater just above the E-clay, and groundwater below the E-clay. The Discharger monitored the various depths at the three locations to establish the vertical extent of degradation. The other two wells were installed in first-encountered groundwater to further delineate the lateral extent of high EC impacted groundwater. Table 3 identifies the Discharger's monitored wells (wells MW-A, -C, -D, and -E are not included since they have been dry since about 1993).

TABLE 3
GROUNDWATER MONITORING WELLS

Monitoring Well	Perforation (ft bgs)	Location
MW-B	13.3-33.3	Near southeast corner of WWTF disposal ponds, west of unlined sludge pit

TABLE 3
GROUNDWATER MONITORING WELLS

Monitoring Well	Perforation (ft bgs)	Location
MW-F	77.8-107.8	About 1 ½ miles northeast (upgradient) of WWTF
MW-G	67.8-97.8	Near southwest corner of WWTF
MW-H1[1]	79.9-109.9	About 2 miles southwest (downgradient) of WWTF
MW-H2[1]	240-250	(Same as H1)
MW-H3[1]	295-305	(Same as H1)
MW-J1[1]	102-122	Centrally along west WWTF boundary
MW-J2[1]	225-235	(Same as J1)
MW-J3[1]	268-278	(Same as J1)
MW-K1[1]	106.1-116.1	About ½ mile south southwest of WWTF
MW-K2[1]	242.1-247.1	(Same as K1)
MW-K3[1]	269.1-274.1	(Same as K1)
MW-L	79.8-99.8	About ½ mile west northwest of WWTF
MW-M	84.8-104.8	About 1 ½ miles southwest (downgradient) of WWTF

[1] Nested wells at the same location. Wells identified with a '1' sample first-encountered groundwater. Wells identified with a '2' sample groundwater just above the E-clay. Wells identified with a '3' sample groundwater just beneath the E-clay.

The 30 January 1998 *Groundwater Investigation Report* (Report), by Boyajian & Ross, Inc., pursuant to the CDO, identified a mound of degraded groundwater about 20 feet in height centered beneath the WWTF's disposal ponds. Regional agricultural and domestic supply wells were sampled along with the groundwater monitoring wells. The Report characterized the mound beneath the WWTF through wells MW-G and MW-J1 having EC greater than 1,000 µmhos/cm, chloride above 110 mg/L and sulfate greater than 50 mg/L. The Report indicates a nitrate (as N) concentration of about 7 mg/L beneath the WWTF and identifies nitrate plumes centered beneath nearby dairies with concentrations up to 57 mg/L. The Report proposed to pump agricultural supply wells located at the WWTF margin to hydraulically control the highest concentrations of effluent-derived dissolved salts in the upper aquifer. Pumped groundwater would be discharged to either Mill Creek or the Use Area for irrigation of the walnut orchard. Since the Report's submittal, pumping of agricultural supply wells in the WWTF vicinity appears to have hydraulically controlled the highest concentrations of effluent-derived dissolved salts in the upper aquifer.

The Discharger submitted its *Spring 2006 Groundwater Monitoring Report* (Spring 2006 Report), dated 19 June 2006, that includes semiannual data from spring of 2006. The Discharger also submitted its *Fall 2004 Groundwater Monitoring Report* (Fall 2004 Report), dated 14 March 2006, that includes semiannual data from spring and fall 2004, and spring and fall of 2003. Spring 2006 data are from the Spring 2006 Report and Spring and fall 2002 data are from the Dischargers Fall 2003 Report. MW-A, MW-C, MW-D, and MW-E were dry during each of the sampling events. MW-B contained sufficient water for sampling only during the fall 2002 sampling event and spring of 2006 sampling event. The Discharger analyzed groundwater samples for the following water quality parameters: pH, EC, total dissolved solids, bicarbonate, calcium, carbonate, chloride, fluoride, iron, lead, magnesium, nickel,

nitrate, phosphorous, potassium, sodium, sulfate, total coliform, and chloroform. Table 4 shows the EC, chloride, and nitrate groundwater data. Data from wells sampled just above and below the E-clay have been averaged to conserve space since the reported values appear consistent over time.

TABLE 4
GROUNDWATER MONITORING DATA

Well No.	Sample Date	EC (µmhos/cm)	Chloride (mg/L)	Nitrate-N (mg/L)
First-Encountered Groundwater				
MW-B	4/24/06	720	68	47
	4/18/02	1,200	61	68
MW-F	4/25/06	460	6.9	<2
	4/7/03	460	9	3
	10/30/02	460	7	<1
	4/17/02	430	10	<1
MW-G	4/25/06	1200	75	110
	10/26/04	Dry	Dry	Dry
	5/14/04	910	44	13
	10/22/03	870	39	11
	4/9/03	1,000	29	10
	10/30/02	730	20	12
	4/17/02	760	22	2.5
MW-H1	4/25/06	1200	91	200
	10/27/04	1,200	89	170
	5/14/04	1,100	--	230
	10/21/03	1,400	91	220
	4/8/03	1,300	98	200
	11/1/02	1,200	94	190
	4/18/02	1,200	98	47
MW-J1	4/25/06	800	70	55
	10/26/04	730	67	19
	5/13/04	760	--	48
	10/22/03	830	59	47
	4/9/03	830	68	33
	11/1/02	690	58	12
	4/17/02	740	65	5.7
MW-K1	4/25/06	530	29	6.1
	10/27/04	520	27	6.1
	5/14/04	520	25	6.3
	10/21/03	570	28	8
	4/7/03	590	28	9
	10/30/02	580	28	9

TABLE 4
GROUNDWATER MONITORING DATA

Well No.	Sample Date	EC (µmhos/cm)	Chloride (mg/L)	Nitrate-N (mg/L)
	4/18/02	660	36	2.9
MW-L	4/25/06	1000	55	150
	10/27/04	1,100	51	130
	5/14/04	1,100	64	210
	10/22/03	1,000	44	120
	4/9/03	1,000	43	130
	11/1/02	1,000	43	130
	4/17/02	970	35	29
MW-M	4/25/06	600	49	18
	10/27/04	620	46	15
	5/14/04	610	52	14
	10/21/03	630	51	16
	4/8/03	600	53	18
	10/30/02	640	51	21
	4/18/02	930	86	12
Groundwater Just Above E-Clay (Average of all samples)				
MW-H2		354	34	45
MW-J2		802	98	45
MW-K2		483	84	15
Groundwater Just Below E-Clay (Average of all samples)				
MW-H3		140	3.5	<1
MW-J3		120	3.9	<1
MW-K3		123	3.9	1.34

The Discharger measured depth to groundwater during each sampling interval and used the data to determine groundwater elevations and create hydrographs and groundwater elevation contour maps. Groundwater data from its Fall 2004 and Spring 2006 Reports show that since the Discharger now only intermittently discharges to the disposal ponds, the groundwater mound beneath the WWTF has subsided and the regional groundwater flow direction has reestablished to the west-southwest. The Discharger's Spring 2002 Report shows impacts to the groundwater table from effluent discharged to the disposal ponds. A groundwater elevation contour map of the data showed a mound beneath the disposal ponds and for the first time since about 1993, the Discharger was able to collect a sample from MW-B. Groundwater monitoring wells capturing first-encountered groundwater passing under the WWTF are MW-B (occasionally), MW-G, MW-J1, and MW-K1. MW-H1 and MW-L are located near confined animal facilities and reflect water quality adversely impacted by those facilities (e.g., groundwater EC exceeds 1,000 µmhos/cm and nitrate (as N) exceeds 100 mg/L).

The Discharger's 2003, 2004, and 2006 groundwater data indicates a significant reduction in the plume of high salinity groundwater as delineated in the Discharger's 30 January 1998 report. MW-G at the

southeast end of the WWTF, which detected EC as high as 1,300 µmhos/cm and chloride above 120 mg/L in 1992, now has EC and chloride of about 1200 µmhos/cm and 75 mg/L, respectively. MW-J1 along the west edge of the WWTF showed a decrease in EC and chloride in groundwater from 1,100 to 800 µmhos/cm and from about 120 to 70 mg/L, respectively. While impacts to groundwater from high salinity discharges have decreased at MW-J1, nitrate concentrations (as N) have significantly fluctuated from 5.7 mg/L on 17 April 2002 to a high of 55 mg/L on 4/25/06. The data suggests that groundwater passing under the WWTF (including its unlined sludge handling facilities) is degraded. MW-K1, along the west side of the Use Area southwest of the WWTF, evidenced similar reductions (EC from 950 to 530 µmhos/cm and chloride from 90 to about 29 mg/L). MW-M, about one mile southwest of the WWTF, also showed similar reductions (EC from 900 to 600 µmhos/cm).

The Discharger's MW-B April 2002 sample indicated salt degradation (EC of 1200 µmhos/cm, TDS of 890 mg/L, chloride of 61 mg/L, and potassium of 21 mg/L) and nitrate pollution (nitrate-nitrogen of 68 mg/L). MW-B The City has not determined with certainty the sources of waste constituents causing groundwater pollution. The salt degradation could reflect residual salt in the soil beneath the ponds. The high nitrate is not characteristic of WWTF effluent, could be the result of past disposal of grease trap wastes in one disposal pond, the use of unlined sludge pits and drying beds east of the well, and/or agricultural practices in the area. Data from additional samples and samples obtained from newly installed wells would clarify the source of this waste constituent.

Groundwater quality data from wells sampling groundwater just above the E-clay (those with a "2" identifier, e.g., MW-J2) indicate a much higher quality than that of the first-encountered groundwater, with EC ranging from 353 to 822 µmhos/cm, chloride from 31 to 101 mg/L, and nitrate from 14 to 45 mg/L. The groundwater quality beneath the E-clay (as determined through wells with a "3" identifier, e.g., MW-J3) is of exceptional high quality with average EC, chlorides, and nitrate-nitrogen of 133 µmhos/cm, 3.7 mg/L, and <1 mg/L, respectively.

BENEFICIAL USES OF RECEIVING WATERS

Water Quality Control Plan for the Tulare Lake Basin, Second Edition), (hereafter Basin Plan) designates beneficial uses, establishes water quality objectives, and contains implementation plans and policies for waters of the Basin. Beneficial uses often determine the water quality objectives that apply to a water body. For example, waters designated as municipal and domestic supply must meet, at a minimum, the maximum contaminant levels (MCLs) for drinking waters adopted by the California Department of Health Services. The Basin Plan sets forth the applicable beneficial uses (e.g., agricultural, warm freshwater habitat, noncontact water recreation, etc.), procedure for application of water quality objectives, and the process for and factors to consider in allocating waste assimilation capacity. The Basin Plan also incorporates by reference certain plans and policies of the State Water Resources Control Board (State Water Board). Chief among the State Water Board's policies for water quality control is State Water Board Resolution No. 68-16, a *Statement of Policy with Respect to Maintaining High Quality of Waters in California* (hereafter Resolution 68-16 or State "Antidegradation" Policy). It requires that, wherever the existing quality of surface waters or groundwaters is better than the objectives established for those waters, the existing quality will be maintained unless as otherwise provided by Resolution 68-16 or any revisions thereto.

California Department of Health Services (DHS), which has primary state-wide responsibility for protecting public health, has established statewide criteria in Title 22, California Code of Regulations (CCR), Section 60301 et seq., (hereafter Title 22) for the use of recycled water and has developed guidelines for specific uses. Title 22 is not directly applicable to surface waters.

Mill Creek is not specifically identified in the Basin Plan but addressed as a Valley Floor Water. The Basin Plan designates the beneficial uses of Valley Floor Waters as agricultural (AGR), industrial service (IND), industrial process supply (PRO); water contact and noncontact water recreation (REC-1 and REC-2); warm freshwater habitat (WARM); wildlife habitat (WILD); rare, threatened or endangered species habitat (RARE); and groundwater recharge (GWR). When the Regional Water Board incorporated State Water Board Resolution No. 88-63, Policy on "Sources of Drinking Water," it determined the surface waters within the basin with designated uses but without designation for MUN were not suitable or potentially suitable for municipal or domestic water supply.

The discharge comprises most of the flow in Mill Creek during much of the year to the point impounded in the percolation ponds, approximately four miles downstream from the WWTF. Thus, Mill Creek is generally dry downstream of the point where flow is diverted to the percolation ponds. This effectively precludes Mill Creek as a potential municipal or domestic water supply source and upstream migration of warm-water fish species from any warm-water fisheries downstream of Mill Creek. The record indicates DFG has determined that Mill Creek does not support rare and endangered species. Mill Creek has the potential to support and may have historically supported aquatic life like crayfish and frogs especially with recent conditions of high rate of sustained flow, and could potentially be planted with fish, though at present this is believed improbable. These uses are likely degraded due to the lethal effects of chlorine, and possibly of ammonia, in the effluent.

The State Water Board has recorded water rights to existing water users downstream of the discharge for irrigation uses. Mill Creek water downstream of the discharge point is currently used to irrigate fiber and fodder crops (e.g., pasture, Sudan grass, silage corn, wheat, oats, barley, and alfalfa). It has yet to be documented what other crops have the potential to be grown with water from Mill Creek. The record contains no evidence that Mill Creek water is utilized or likely to be utilized for industrial service or industrial process supply. Mill Creek downstream of the discharge point flows through areas where there is public access, but sparse habitation. While the record has no evidence of these uses occurring, the presence of water in a natural setting makes it probable that noncontact water recreation will eventually occur if it does not already.

Water conveyed in Mill Creek infiltrates along its reach and is diverted to the percolation basins that serve to recharge groundwater. The beneficial uses of area groundwater, as identified in the Basin Plan, are municipal and domestic supply, industrial service and process supply, and water contact recreation that serve to recharge groundwater.

Order No. 97-061, Finding No. 45, indicates the beneficial uses of Mill Creek downstream of and west of the WWTF as aesthetics, agricultural supply, wildlife habitat, and groundwater recharge (REC-2, AGR; WILD and GWR, respectively). These beneficial uses differ from the Basin Plan's designated beneficial uses as previously indicated above by the elimination of IND, PRO, REC-1, WARM, and RARE. The Regional Water Board applied the above indicated beneficial uses in Order No. 97-061, because at that time, the Regional Water Board could apply judgment: (1) for tributaries to water bodies

identified in the Basin Plan, in cases where a beneficial use is not applicable to the entire body of water; and (2) for unidentified water bodies, the beneficial uses will be evaluated on a case-by-case basis (See Basin Plan, page II-2). In applying the beneficial uses in Order No. 97-061, the Regional Water Board's judgment was based on available information at that time including information provided by DFG, as previously indicated above.

Precedential State Water Board Order No. WQ2002-0015 (Vacaville Order) provides guidance on implementing the Basin Plan, particularly the protection of beneficial uses as designated in an effluent dominated water body where actual and probable uses warrant re-evaluation. Some of the issues addressed by the State Water Board Order may be relevant to the Visalia WWTF discharge. Specifically, the beneficial uses affecting the most stringent effluent limitations of this Order are the WARM and REC-1. Other designated beneficial uses, whether they exist or do not exist, are unlikely to change the effluent limitations of this Order. The Regional Water Board staff has determined that WARM and REC-1 designated beneficial uses are existing and probable beneficial uses. Therefore, Regional Water Board staff determined that the most stringent limitations in this Order are appropriate.

However, this Order provides guidance to the Discharger if it desires to challenge the Regional Water Board staff's determination. If the Discharger has or wishes to acquire information that indicate the REC-1 beneficial use does not exist in Mill Creek and is unlikely to be attained in the future in Mill Creek, the Discharger may provide the information to the Regional Water Board so that this beneficial use can be fully evaluated through a Use Attainability Analysis (UAA) and changed if appropriate. As State Water Board Order No. WQ2002-0015 makes clear the Discharger bears the responsibility for providing the information to support this evaluation. To the extent that beneficial use designation/dedesignation issue is relevant in this case, the Discharger should consider evaluating alternatives for the discharge to determine the most cost effective course of action (e.g., increased treatment, alternative methods of disposal, studies to support dedesignating beneficial uses, etc.).

Water Quality Objectives. The discharge must be conducted in a manner to ensure compliance with the Basin Plan's water quality objectives. These in turn define the least stringent limits that could apply as water quality limitations for receiving waters affected by the discharge. There are narrative and numeric objectives for surface water addressing bacteria, biostimulatory substances, chemical constituents, color, dissolved oxygen, floating material, oil and grease, pH, pesticides, radioactivity, salinity, sediment, settleable material, suspended material, tastes and odors, temperature, toxicity, and turbidity. Similarly, there are numeric and narrative water quality objectives for groundwater.

TITLE 27 EXEMPTION

Title 27, CCR, Section 20005 et seq. (Title 27), contains regulations to address certain discharges to land. Title 27 establishes a waste classification system, specifies siting and construction standards for full containment of classified waste, requires extensive monitoring of groundwater and the unsaturated zone for any indication of failure of containment, and specifies closure and post-closure maintenance requirements. Generally, no degradation of groundwater quality by any waste constituent in a classified waste is acceptable under Title 27 regulations.

Discharges of domestic sewage and treated effluent can be treated and controlled to a degree that will not result in unreasonable degradation of groundwater. The discharge of sewage and effluent is covered by

regulations outside of Title 27. For these reasons, they have been conditionally exempted from Title 27. Treatment and storage facilities for sludge that are part of the WWTF are considered exempt from Title 27 under Section 20090(a), provided that the facilities not result in a violation of any water quality objective. However, residual sludge (for the purposes of the proposed Order, sludge that will not be subjected to further treatment by the WWTF) is not exempt from Title 27. Solid waste (e.g., grit and screenings) that results from treatment of domestic sewage and industrial waste also is not exempt from Title 27. Discharges to land of this residual sludge and solid waste are subject to the provisions of Title 27.

Discharge to land of high-strength organic waste (e.g., digested sludge on unlined drying beds) may overload soils with nutrients and organics that can result in anaerobic conditions in the soil profile, which in turn creates organic acids and decreases soil pH. Under conditions of low soil pH (i.e., below 5) and reducing conditions, iron and manganese compounds in the soil can solubilize and leach into groundwater. Discharge of residual sludge to land may also lead to increases in groundwater alkalinity and hardness to concentrations that impair the water's beneficial uses and contribute to an overall increase in TDS. Overloading is preventable and does not constitute best practicable treatment and control as is required by Resolution 68-16. Elevated concentrations in groundwater compared to percolating effluent of dissolved iron and dissolved manganese, along with elevated alkalinity, and hardness are useful indicators to determine whether components of the WWTF with high-strength waste constituents, such as sludge handling facilities, are ineffective in containing waste.

Accordingly, the municipal discharge of effluent and the operation of treatment or storage facilities associated with a municipal wastewater treatment plant can be allowed without requiring compliance with Title 27, but only if resulting degradation of groundwater is in accordance with the Basin Plan. This means, among other things, that degradation of groundwater must be consistent with Resolution 68-16 and in no case greater than water quality objectives.

PROPOSED ORDER TERMS AND CONDITIONS

The discharge has been occurring for years. Certain waste constituents in municipal wastewater are not fully amenable to waste treatment and control and it is reasonable to expect some impact on groundwater. The Regional Water Board cannot yet determine how much degradation can be justified as consistent with policy due to incomplete data and incomplete evaluation of treatment and control measures. Groundwater monitoring data at this site is insufficient to establish the most appropriate numeric receiving water limitations. In addition, as explained elsewhere in this information sheet, certain aspects of waste treatment and control practices can be improved and therefore cannot be justified as representative of BPTC (e.g., continued use of unlined sludge handling facilities, the lack of dechlorination, potential effluent ammonia toxicity, etc.).

During a 27 July 2006 meeting with Regional Water Board staff, the City expressed its intent to complete a facilities plan to examine, among others, the feasibility of cessation of discharge to Mill Creek, necessary revisions to its sludge treatment and handling facilities, and the need for effluent nitrification/denitrification. This Order requires the City to complete its facilities plan and address WWTF deficiencies

Further, the Discharger has not provided a definitive inventory of crops that are or could be grown in the area potentially affected by WWTF discharges, nor has it provided a detailed assessment of uses of surface and groundwater within the area potentially affected by the discharge. Following the completion of these studies, this Order can be reopened so this Regional Water Board can consider final numerical groundwater limitations.

Reasonable time is necessary to gather specific information about the facility and the site and the area affected by its discharges to make informed decisions on appropriate, long-term conditions of discharge. This Order requires the Discharger to assemble the technical information necessary for this Regional Water Board to determine the area potentially affected by the discharge, the controlling beneficial uses of water impacted by discharges, and to derive appropriate numerical groundwater quality objectives for the WWTF that comply with Resolution 68-16. In the interim, it would establish receiving water limitations that (a) temporarily and conditionally allow use of the full assimilative capacity of the aquifer affected by the discharge and (b) assure protection of the beneficial uses of groundwater pending the completion of specific tasks.

The proposed Order establishes discharge prohibitions, discharge specifications, recycling specifications, sludge specifications, pretreatment requirements, receiving water limitations, groundwater limitations, and requires the Discharger to comply with numerous provisions.

Provisions in the proposed Order requires the Discharger to:

- Implement dechlorination to eliminate the chlorine toxicity in Mill Creek currently caused by the discharge

- Complete a facilities plan that identifies modifications to the WWTF's sludge handling operations to preclude or minimize the release of waste constituents to groundwater and requires the City to cease discharge to Mill Creek or (1) implement permanent dechlorination and chlorine residual monitoring equipment, and (2) implement WWTF modifications to comply with effluent ammonia limits.

- Expand its groundwater monitoring program to evaluate the extent to which area groundwater has been degraded or polluted by

    - The long-term use of unlined sludge handling facilities

    - The unpermitted discharge of grease trap waste to onsite disposal ponds

    - The routine diversion of effluent-dominant Mill Creek flows to 160 acres of percolation ponds owned by the City.

    - Diversions to percolation ponds dedicated to groundwater recharge.

- Another provision would impose limitations and requirements to implement best practicable treatment or control.

DISCHARGE SPECIFICATIONS

Effluent limitations are based primarily on the Basin Plan. Further, federal regulations require that effluent limitations in NPDES permits must control all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above any state water quality standard, including any narrative criteria for water quality (40 CFR 122.44(d)(1)(i)).

Flow. The proposed Order establishes a maximum discharge flow limitation of 20 mgd, as the discharge flow authorized by the proposed Order must be consistent with that examined through the CEQA process.

Conventional Pollutants. Pursuant to 40 CFR sections 133.102(a) and (b), the current Order requires, on a monthly average basis, a 85 percent removal efficiency or reduction to a concentration of 30 mg/L, whichever is more restrictive, of both BOD_5 and TSS. The current Order also prescribes effluent limitations of 45 mg/L each for weekly average BOD_5 and TSS. Regarding pH, the current Order prescribes an effluent limitation of not less than 6 or greater than 9. The proposed Order carries over the current Order's effluent limitations for conventional pollutants, but prescribes more restrictive pH limits (not less than 6.5 or greater than 8.3) to implement the Basin Plan's water quality objective for surface water pH.

Salinity (as EC). The current Order stipulates that the EC of the discharge not exceed the source water EC plus 500 µmhos/cm, or 1,000 µmhos/cm, whichever is more stringent. This limitation is prescribed by the Basin Plan and is necessary to ensure the Discharger adheres to best practicable control for salinity constituents. CWA Section 402(o) establishes express statutory language prohibiting the backsliding of effluent limitations. The proposed Order carries over the existing Order's effluent limitation for EC and requires it to be even lower, as necessary, to ensure compliance with the proposed Order's groundwater limitation for EC (i.e., 900 µmhos/cm).

Chloride. The current Order prescribes an effluent chloride limitation of 175 mg/L, which is derived from the absolute maximum in the Basin Plan. Effluent-dominant flows in Mill Creek are diverted to percolation ponds for groundwater recharge. Chloride is a conservative element that readily passes through the soil profile to groundwater. The chloride effluent limitation for Discharge 001 from the previous Order is carried over in this proposed Order.

Coliform. The current Order's effluent limitations for 7-day median and daily maximum total coliform organisms are 23 and 500 MPN/100 mL, respectively. A 4 August 2006 DHS confirms these limits are appropriate disinfection levels for discharges to Mill Creek based on identified downstream use patterns. The letter recommends disinfected secondary-23 recycled water as protective of known REC-1 intensity and AGR uses of Mill Creek, provided areas of public access are posted to discourage REC-1 uses and AGR uses are limited to fiber and fodder crops. This Order provides a reopener that allows this Regional Water Board to reconsider these limits in the event future information reveals significant REC-1 use of Mill Creek or that Mill Creek water is used to irrigate food crops.

Oil and Grease. The current Order does not include effluent limitations for oil and grease. Staff recommends the Regional Water Board prescribe monthly average and daily maximum oil and grease

effluent limitations of 10 and 15 mg/L, respectively. These proposed effluent limitations have proven achievable by dischargers (Cities of Merced, Stockton, and Vacaville), reflect BPTC, and been demonstrated to achieve receiving water criterion in similar NPDES discharge situations (e.g., Cities of Merced and Vacaville). Discharger monitoring data since 1997 indicates the discharge's oil and grease concentration is typically below 5 mg/L.

No Available Dilution in Effluent Limitation Determination. In determining whether a discharge has the reasonable potential to contribute to an in-stream excursion above any State water quality standard, including any narrative criteria, the dilution of the effluent in the receiving water may be considered where areas of dilution are defined. The available dilution may also be used to calculate protective effluent limitations by applying water quality criteria at the edge of the defined mixing zone. These calculations include receiving water pollutant concentrations that are typically based on worst-case conditions for flow and concentration. If limited or no dilution is available, the effluent limitations are set equal to the applicable water quality criteria that are applied at the end-of-pipe so the discharge will not cause the receiving stream to exceed water quality objectives established to protect beneficial uses. According to Discharger monitoring data, the worst-case condition for flow in Mill Creek has no dilution at the point of discharge. Consequently, dilution was not considered in determining reasonable potential. The Order, as proposed, establishes effluent limitations as applicable water quality criteria end-of-pipe limits.

Toxicity Receiving Water Limitation and Chronic Toxicity Testing. The proposed Order requires chronic toxicity testing consistent with current USEPA procedures (i.e., as specified in EPA/821/R-02/013). USEPA recommends conducting chronic toxicity testing if the dilution of the effluent is less than 100:1 (receiving water : effluent). Flow in Mill Creek is currently not monitored. Flows upstream of the WWTF exist only during significant storm water runoff or during periods of flood releases and irrigation deliveries from Lake Kaweah. Further, Kaweah-Delta Water Conservation District staff have indicated that an agreement between the City and the District requires that when there are flood flows in Mill Creek, discharges from the WWTF will be directed either to Discharge 002 (Use Area) or 003 (disposal ponds); thereby eliminating most periods when dilution would be available. The monitoring and reporting program requires monitoring for acute toxicity and chronic toxicity. Chronic toxicity testing is required to determine whether chemicals in the wastewater are toxic. Results of the toxicity reduction evaluation, if one is required, will then allow Regional Water Board staff to establish effluent limitations for pollutants that may cause or may have reasonable potential to cause toxicity in the wastewater.

Determining Reasonable Potential. USEPA's National Ambient Water Quality Criteria recommends limitations to protect against toxicity. Toxicity based water quality criteria have been promulgated by USEPA on inland surface waters of California in the National Toxics Rule (NTR) and California Toxics Rule (CTR). Toxicity based water quality limits are also published by other agencies, such as DHS and Office of Environmental Health Hazard Assessment (OEHHA). Staff reviewed these criteria to derive numeric limitations to protect the receiving stream from toxicity. Staff recommends the Regional Water Board not prescribe effluent limitations for priority pollutants based on the CTR's criterion of human consumption of water and organisms because the Basin Plan does not designate the beneficial use of municipal and domestic supply to Valley Floor Waters such as Mill Creek. Waters in Mill Creek recharge groundwater, which has the designated use of municipal and domestic supply. It is likely, however, that the concentration of priority pollutants in the discharge will attenuate as the discharge

percolates through the soil profile. This attenuation will likely decrease the concentrations of priority pollutants in the discharge to levels that are protective of groundwater. The proposed Order's groundwater limitations include a narrative toxicity limit. It requires effluent, surface receiving water, and groundwater monitoring for priority pollutants and has a provision that allows the Regional Water Board reopen the Order and establish effluent limitations for priority pollutants should monitoring data indicate these pollutants are present in concentrations exceeding the CTR criteria for human consumption of water and organisms.

The Discharger has completed its quarterly priority pollutant monitoring pursuant to the Regional Water Board's Section 13267 letter dated 27 February 2001. Table 5 below shows the priority pollutants detected in at least one quarterly sampling interval.

TABLE 5
PRIORITY POLLUTANT MONITORING

Pollutant No.	Contaminant	Sample Date	Result (µg/L)	MDL (µg/L)
5a	Chromium (III)	4/12/2001	2.0	0.1
		7/10/2001	2.0	0.1
		10/9/2001	2.0	0.1
		1/7/2002	0.2	0.1
5b	Chromium (VI)	4/12/2001	ND	0.2
		7/10/2001	ND	0.2
		10/9/2001	ND	0.2
		1/7/2002	1.8	0.2
8	Mercury (Hg)	4/12/2001	0.00428	0.0002
		7/10/2001	0.0101	0.0002
		10/9/2001	0.0258	0.0002
		1/7/2002	0.0041	0.0002
10	Selenium (Se)	4/12/2001	ND	0.5
		7/10/2001	3.0	0.5
		10/9/2001	ND	0.5
		1/7/2002	ND	0.5
26	Chloroform	4/12/2001	5.2 DNQ[1]	0.160
		7/10/2001	2.18 DNQ[1]	0.160
		10/9/2001	5.9	0.160
		1/7/2002	1.89 DNQ[1]	0.160
39	Toluene	4/12/2001	ND	0.191
		7/10/2001	0.58 DNQ[1]	0.191
		10/9/2001	ND	0.191
		1/7/2002	0.66 DNQ[1]	0.191
68	Bis(2-Ethylhexyl) Phthalate	4/12/2001	53	4.044
		7/10/2001	ND	4.044
		10/9/2001	ND	4.044
		1/7/2002	ND	4.044
84	Di-n-Octyl Phthalate	4/12/2001	32	0.934
		7/10/2001	ND	0.934

TABLE 5
PRIORITY POLLUTANT MONITORING

Pollutant No.	Contaminant	Sample Date	Result (µg/L)	MDL (µg/L)
		10/9/2001	ND	0.934
		1/7/2002	ND	0.934

[1] Detected, but Not Quantified

Regional Water Board staff conducted a Reasonable Potential Analysis (RPA) of the priority pollutant sampling results following the State Water Board's 2005 *Policy for Implementation of Toxics Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (hereafter SIP) instructions. The RPA (Attachment D) indicates that the discharge has a reasonable potential to cause a human health (one in a million cancer) risk for consumption of organisms for Bis(2-Ethylhexyl)Phthalate. The Regional Water Board staff considers this RPA for Bis(2-Ethylhexyl)Phthalate to be inadequate as explained below.

The Discharger requested Regional Water Board staff perform an RPA for Bis(2-Ethylhexyl)Phthalate using additional data from yearly priority pollutant monitoring performed as part of the Discharger's industrial pretreatment program. Three different scenarios were analyzed to determine whether there was reasonable potential for Bis(2-Ethylhexyl)Phthalate to exceed water quality criteria of 5.9 µg/L (human health risk for consumption of organisms). If a reasonable potential is determined for a pollutant using the procedures in the SIP, appropriate effluent limits for that pollutant are required. Because this discharge has no dilution credits, the monthly average effluent limit for that constituent is determined using the direct water quality criteria (5.9 µg/L). The daily maximum effluent concentration is based on a statistical analysis of the available data. This analysis consists of calculating the covariance (CV) or the "spread" of the dataset. The SIP requires that a CV of 0.6 be used to calculate the daily maximum limit if (a) the number of effluent data points is less than ten, or (b) at least 80 percent of the data are reported as nondetect. All of the scenarios below fall into one of these two categories.

The following discussion concerns whether there is reasonable potential and the need for effluent limits - not the numerical limits themselves. The following is a description of each scenario and the determination of reasonable potential using the procedures set forth in the SIP. The full analysis is shown in Attachment E. The footnotes provide an explanation of how reasonable potential was determined.

Scenario No.	Description	Reasonable Potential? (Y/N)
1	Data from 1990 through January 2002	Y[1]
2	Data from 2001 through January 2002	Y[1]
3	Data from 1990 through January 2002 without the 4/12/01 datum (53 µg/L)	Y[2, 3]

[1] The maximum pollutant concentration for the effluent (MEC) is greater than the water quality criteria (53 µg/L>5.9 µg/L)

[2] All laboratory test results were reported non-detect. However, the reported detection limit of two of the 14 laboratory tests exceeded the water quality criteria of 5.9 µmhos/cm.

[3] Since 14 of the 15 samples tested non-detect, the 4/12/01 test results appear to be an anomaly.

The RPA for the first two scenarios above show reasonable potential for Bis (2-Ethylhexyl) Phthalate to cause or contribute to an exceedance of water quality criteria for that pollutant due to the MEC of 53 µg/L, which exceeds the WQC of 5.9 µg/L.

In the third scenario, the 12 April 2001 sample result was 53 µg/L. This sample result is considered to be not valid (perhaps due to laboratory error and not an indication of pass through) and therefore not a representative sample. In accordance with Section 1.2 of the SIP, only representative samples shall be considered when conducting the RPA. Therefore the 12 April 2001 was disregarded for the RPA since it was a non-representative sample. The third scenario appears to be the most likely scenario, therefore no reasonable potential exists for Bis(2-ethylhexyl)phthlate, and no effluent limits have been established in this Order. However, this Order requires additional monthly monitoring for at least six months at the required detection limits to verify the absence of Bis(2-ethylhexyl)phthlate.

Regional Water Board staff also conducted the RPA for lead, not only with CTR monitoring data submitted pursuant to the Section 13267 letter dated 27 February 2001, but also with data submitted pursuant to the current Order. Like the RPA for bis(2-ethylhexyl)phthlate, Regional Water Board staff considers the RPA for lead to be inadequate due to insufficient data as explained below.
This Order includes the designated beneficial use of WARM for Mill Creek. Water quality criteria to protect aquatic life are more stringent than the current limitations for protecting human health (consumption of organisms). Lead WQC vary with the hardness of the receiving water. Based on the current average hardness of the discharge of 100 mg/L (as $CaCO_3$), the WQC for lead are 3.2 µg/L for a criteria continuous concentration (CCC)(a four-day average) and 82 µg/L for a criteria maximum concentration (CMC)(a one-hour average) as total recoverable lead. Because the current permit includes lead effluent limitation and monitoring requirement, Regional Water Board staff considered including the lead monitoring data submitted pursuant to the current permit in conducting the RPA to provide a more accurate RPA result. The Regional Water Board staff reviewed the lead test results for the last six years (2000 and 2005). All lead sample results submitted pursuant to Order No. 97-061 have been reported as “less than 0.005 mg/L,” and reporting detection limit of 0.005 mg/L (equivalent to 5 µg/L). The reported detection limit does not meet the SIP required minimum level of 0.5 µg/L. Therefore this Order requires continued effluent monitoring for lead. The effluent limitation for lead from the previous Order remains in place since the Discharger has not conclusively shown the absence of lead in its effluent.

Ammonia. Untreated domestic wastewater contains ammonia. Nitrification is a biological process that converts ammonia to nitrate, and denitrification is a process that converts nitrate to nitrogen gas, which is then released to the atmosphere. Wastewater treatment plants commonly use nitrification and denitrification processes to remove ammonia from the waste stream. Inadequate or incomplete nitrification may result in the discharge of ammonia to the receiving stream. The WWTF effluent contains a greater proportion of organic nitrogen (TKN) indicating incomplete nitrification. The RWD

includes three effluent results for ammonia: 8 mg/L, 8 mg/L, and 6 mg/L. The Basin Plan states, "In no case shall the discharge of wastes cause concentrations of un-ionized ammonia (NH3) to exceed 0.025 mg/l (as N) in receiving waters." Given there is no dilution in Mill Creek, effluent containing these concentrations of ammonia when it comprises flow to Mill Creek will have the reasonable potential to cause an exceedance of the Basin Plan water quality objective for ammonia. This Order implements a daily maximum effluent limit for ammonia of 0.025 mg/L. As Order No. 97-061 did not protect WARM and the WWTF discharge has not previously been regulated for ammonia, it is appropriate to include an interim limit for ammonia.

When there are less than ten sampling data points available, the *Technical Support Document for Water Quality- Based Toxics Control* ((EPA/505/2-90-001), TSD) recommends a coefficient of variation of 0.6 be utilized as representative of wastewater effluent sampling. The multipliers contained in Table 5-2 of the TSD are used to determine a maximum daily limitation based on a long-term average objective. In this case, the long-term average objective is to maintain, at a minimum, the current plant performance level. Therefore, when there are less than ten sampling points for a constituent, interim limitations are based on 3.11 times the maximum observed effluent concentration to obtain the daily maximum interim limitation (TSD, Table 5-2). This Order includes a performance based interim ammonia limit of 25 mg/L and, if the City chooses not to cease discharge to Mill Creek, a compliance schedule to meet at minimum the Basin Plan objective.

USEPA's Ambient Water Quality Criteria contain limitations for ammonia that reflects concentrations protective of fish and other aquatic species. The Department of Fish and Game reported once that Mill Creek does not support a fishery and was not expected to do so in the future. However, this determination was made based on the intermittent and ephemeral flow conditions in Mill Creek prior to 1996, when the City initiated its year round discharge. Now that Mill Creek from the point of the City's discharge sustains a relatively constant flow for most of the year, it is reasonable to expect the current flow conditions capable of attaining and maintaining some degree of warm freshwater and wildlife habitat. Since USEPA does not provide acute ammonia toxicity criteria for nonfish aquatic species, a daily maximum ammonia effluent limitation that exceeds USEPA's acute ammonia toxicity criteria for fish may still be adequately protective of aquatic life in Mill Creek. Additionally, a monthly average ammonia effluent limitation that exceeds USEPA's chronic ammonia criteria may still be adequately protective of aquatic life in Mill Creek. The proposed Order includes a provision for the City to study the impacts of ammonia on Mill Creek and allows the City to recommend an adequately protective ammonia effluent limit for Mill Creek based on the types of aquatic species that occur or may occur in Mill Creek and what level of ammonia is toxic to these species.

Residual Chlorine. The current Order does not prescribe an effluent limitation for chlorine residual. This is explained in Finding No. 35 of the current Order:

> "The California Department of Fish and Game (DFG) reports that Mill Creek is not a warm water fishery and is not expected to support a fishery in the future. DFG also reports that Mill Creek does not support rare and endangered species. Therefore, chlorine residual of the effluent is not limited in this Order."

In re-evaluating this issue, Regional Water Board staff observes that aquatic life in a warm fresh water habitat is not restricted to fish and rare and endangered species. Accordingly, to protect Mill Creek's

beneficial use for warm water habitat, it is necessary for chlorine not to be present in concentrations that are toxic to aquatic life. The USEPA's recommended criteria for chlorine is below the detection limit for tests approved by USEPA identified in 40 Code of Federal Regulations, section 136.3, Table IB. The proposed Order requires effluent discharged to Mill Creek to not contain chlorine in concentrations exceeding the detection limit achievable by these methods. As the Discharger has not been required to dechlorinate its effluent pursuant to the current Order, the proposed Order includes a provision for the Discharger to install a dechlorination system within six months of adoption of the proposed Order, at which time, the chlorine residual effluent limitation will become effective. Should the Discharger choose to continue discharge to Mill Creek following completion of its facilities plan, this Order requires it to install permanent dechlorination units and appropriate continuous chlorine residual monitoring systems.

Phenol. The effluent limitation for phenol in the current Order was prescribed in previous Orders as a result of discharges by Southern California Edison (SCE) from a project to cleanup groundwater contaminated by a SCE pole yard. The Discharger indicates that it has analyzed 130 effluent samples for phenol since 1997 and all have been nondetect, except one that registered 0.015 mg/L. The Discharger regulates SCE and its discharge of treated groundwater as a Significant Industrial User and indicates its pretreatment monitoring of this discharge demonstrates SCE's treatment process is working effectively at reducing the concentration of phenol to nondetect. The proposed Order continues monitoring for this constituent to monitor the effectiveness of SCE's groundwater cleanup treatment process. The proposed Order requires the Discharger to include in its annual reports a discussion of the SCE's groundwater cleanup treatment performance and summary of phenol monitoring data. Removal of the effluent limit for phenol is consistent with 40 CFR 122.44(l)(2)(i)(B)(1) because the effluent samples collected since last permit was issued in 1997 represent information about the discharge that was not available at the time of the previous permit's issuance. The effluent samples collected since 1997 indicate that phenol is not present in the effluent.

Pentachlorophenol. The effluent limitation for pentachlorophenol in the current Order, like the limitation for phenol, was prescribed in previous Orders as a result of discharges by SCE from its pole yard groundwater cleanup project. The Discharger indicates that it has analyzed 137 effluent samples for pentachlorophenol since 1997 and all have been nondetect. The Discharger regulates SCE and its discharge of treated groundwater as a Significant Industrial User and indicates its pretreatment monitoring of this discharge demonstrates SCE's treatment process is working effectively at reducing the concentration of pentachlorophenol to nondetect. The proposed Order requires the Discharger to include in its annual reports a discussion of the SCE's groundwater cleanup treatment performance and summary of pentachlorophenol monitoring data. Removal of the effluent limit for pentachlorophenol is consistent with 40 CFR 122.44(l)(2)(i)(B)(1) because the effluent samples collected since last permit was issued in 1997 represent information about the discharge that was not available at the time of the previous permit's issuance. The effluent samples collected since 1997 indicate that pentachlorophenol is not present in the effluent.

RECEIVING WATER LIMITATIONS

The Regional Water Board is required, relative to surface water and the groundwater that may be affected by the discharge, to implement the Basin Plan and consider the beneficial uses to be protected along with the water quality objectives essential for that purpose. The Regional Water Board need not

authorize the full utilization of the waste assimilation capacity of the receiving waters (CWC Section 13263(b)) and must consider other waste discharges, factors that affect that capacity and effluent limits based on available technology. The Antidegradation Policy requires the maintenance of the existing high quality (i.e., "background") of surface waters and groundwaters unless a change in water quality can be found as "consistent with maximum benefit to the people of the State." Maintenance of the existing high quality of water means maintenance of "background" water quality conditions and defines the most stringent limits that could possibly apply in this situation. Water quality objectives define the least stringent limits that could apply as water quality limitations for receiving waters at this location, except where background quality unaffected by the discharge already exceeds the objective.

Receiving Water Limitations – Surface Water. Receiving Water Limitations D.1 through D.16 are water quality objectives direct from the Basin Plan. Receiving Water Limitation D.4 for chlorine residual becomes effective six months following Order adoption to allow the Discharger time to implement dechlorination.

Receiving Water Limitations – Groundwater. The proposed Order prescribes groundwater limitations that implement water quality objectives for groundwater from the Basin Plan in narrative form. The current Order's groundwater limitations stipulate that the discharge, in combination with other sources, shall not cause underlying groundwater to contain waste constituents in concentrations greater than background water quality, except for EC. The current Order allows for an incremental increase in EC over a five-year period of not exceeding 15 µmhos/cm. Regional background water quality has not been sufficiently characterized. The Discharger's "upgradient" groundwater data is from MW-F adjacent to an irrigation supply canal. Monitoring data from MW-F show that groundwater passing through the well reflects the high quality of surface water conveyed in the canal. Hence, data from MW-F is not representative of regional groundwater upgradient from the WWTF and to treat it as such could be punitive. Due to the location of the WWTF (at the eastern fringe of the San Joaquin Valley), the mineral quality of regional background groundwater is nevertheless expected to be of high quality (i.e., concentrations of mineral constituents in groundwater are below water quality objectives).

In contrast to the current Order, the proposed Order prescribes groundwater limitations that implement narrative water quality objectives. It also requires the Discharger to go through a process to establish more appropriate site-specific numeric groundwater limitations. Since the proposed Order implements existing objectives, the Regional Water Board need not undertake further consideration of the factors in CWC Section 13241 (including economic considerations).

The proposed Order requires the Discharger's groundwater monitoring well network include one or more background monitoring wells and sufficient number of wells to determine compliance with the proposed Order's groundwater limitations and evaluate performance of BPTC measures. These include monitoring wells forming a vertical line that extends from the soil surface into the uppermost layer of water in the uppermost aquifer immediately downgradient of representative treatment, storage, and disposal unit that does or may release waste constituents to groundwater. One or more wells will monitor the quality of groundwater unaffected by the discharge and serve as 'background.' Other monitoring wells would be for determining compliance with the proposed Order's groundwater limitations. To comply, the Discharger would have to expand its current network to effectively monitor groundwater under certain WWTF features (unlined sludge handling facilities, disposal ponds), and 160-acre percolation pond area to which most effluent is diverted for groundwater recharge.

MONITORING AND REPORTING REQUIREMENTS

The proposed Order requires the Discharger to monitor WWTF influent and effluent at specific frequencies to evaluate compliance with effluent limitations and to monitor the receiving surface water upstream and downstream of the point of discharge to evaluate compliance with receiving water limitations. Where composited sampling of influent and effluent is warranted, the proposed Order requires the Discharger to composite on a flow-proportional basis. Because the Discharger does not currently have the ability to automatically collect flow-proportioned composite samples, the proposed Order does not implement this requirement for three years following Order adoption. The proposed Order also requires the Discharger to monitor sludge production and disposal operations, and to report on its pretreatment program activities.

The proposed Order requires influent monitoring of settleable solids, pH, EC, BOD_5, TSS, oil and grease, ammonia, TKN, and the following metals: aluminum, arsenic, barium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc. Effluent monitoring shall include settleable solids, pH, EC, chlorine residual, BOD_5, TSS, TCO, ammonia, nitrate (as N), nitrite (as N), TKN, total nitrogen, TDS, oil and grease, selenium, bis(2-ethylhexyl)phthalate, acute toxicity, general minerals, metals (same as influent), and priority pollutants. Effluent monitoring of these constituents is necessary to check compliance with various discharge specifications. The proposed Order requires the Discharger to characterize the discharge for constituents identified in Title 22, CCR, sections 64431 (Inorganic Chemicals including Fluoride); 64443 (Radioactivity); 64444 (Organic Chemicals); and 64449 (Secondary MCLs – Consumer Acceptance Limits). The proposed Order also includes surface water monitoring, chronic toxicity monitoring, pretreatment program monitoring, sludge monitoring, water supply monitoring, disposal pond monitoring, and groundwater monitoring. The monitoring is necessary to evaluate groundwater quality and the extent of the degradation and pollution from the discharge. The proposed Order includes monitoring of recycling activities to check compliance with Title 22 and the terms and conditions of the proposed Order.

The proposed Order continues the influent and effluent monitoring of all constituents that required monitoring in the previous Order, and adds influent monitoring for oil and grease, ammonia, and TKN, and adds effluent monitoring for ammonia, nitrite, TKN, TDS, selenium, bis(2-ethylhexyl)phthalate, acute toxicity, additional metals, minerals, Title 22 constituents, and priority pollutants; and adds chronic toxicity monitoring. The additional monitoring requirements are to develop a more accurate characterization of the discharge and its impacts on Mill Creek, while the addition of ammonia, nitrite, and TKN are to quantify the amount of nitrogen loading.

To determine if the Discharger is in compliance with Effluent Limitation B.7, the proposed Order requires the Discharger monitor its source water annually for EC and TDS, and for general minerals once every three years. To determine the efficiency of the Discharger's operation, the Discharger is required to monitor influent for settleable solids, pH, EC, BOD_5 and TSS, ammonia, TKN, and metals. In order to adequately characterize its effluent, the Discharger is required to monitor continuously for chlorine residual and to sample for settleable solids, pH, EC, temperature, BOD_5, TSS, total coliform organisms, ammonia, nitrate, nitrite, TKN, total nitrogen, oil and grease, TDS, lead, selenium, bis(2-ethylhexyl)phthalate, general minerals, metals, priority pollutants, chronic toxicity, and Title 22 constituents. The Discharger is required to monitor the receiving water for dissolved oxygen, pH, turbidity, temperature, EC, ammonia, un-ionized ammonia (as N), chlorine residual, hardness, lead, fecal

coliform organisms, chronic toxicity, and priority pollutants. The proposed Order contains a trigger for chronic toxicity monitoring effective starting after the Discharger implements dechlorination. To monitor disposal ponds when in use for effluent disposal for capacity constraints and potential nuisance conditions, the Discharger would be required to monitor freeboard available and dissolved oxygen content on an "as required" basis since conditions of low dissolved oxygen in disposal ponds are not expected to occur because effluent BOD has historically been low.

The proposed Order requires the Discharger to monitor sludge in accordance with USEPA's *POTW SLUDGE SAMPLING AND ANALYSIS GUIDANCE DOCUMENT, AUGUST 1989,* and test for arsenic, cadmium, molybdenum, copper, lead, mercury, nickel, selenium, and zinc. The proposed Order requires the Discharger to submit an annual summary of sludge discharge and disposal operations.

The Title 27 zero leakage protection strategy relies heavily on extensive groundwater and unsaturated zone monitoring to increase a discharger's awareness of, and accountability for, compliance with the prescriptive and performance standards. With a high volume, concentrated, uncontained discharge to land, monitoring takes on even greater importance. The proposed Order includes monitoring of applied waste quality and groundwater.

Section 13267 of the CWC authorizes the Regional Water Board to require monitoring and technical reports as necessary to investigate the impact of a waste discharge on waters of the state. In recent years there has been increased emphasis on obtaining all necessary information, assuring the information is timely as well as representative and accurate, and thereby improving accountability of any discharger for meeting the conditions of discharge. Section 13268 of the CWC authorizes assessment civil administrative liability where appropriate.

The proposed Order requires the Discharger monitor groundwater for constituents present in the discharge that are capable of reaching groundwater and violating groundwater limitations if its treatment and control, and any dependency of the process on sustained environmental attenuation, proves inadequate. As some groundwater limitations are based on background water quality, it is essential that the Discharger install wells in a location that can provide groundwater quality representative of the discharge area but unaffected by both the discharge and other waste sources. The proposed Order requires the Discharger to install such well(s) and characterize background water quality over a one-year period of quarterly groundwater sampling events. The proposed Order also requires the Discharger to propose a data analysis method for evaluating groundwater monitoring data. Once approved by the Executive Officer, the Discharger would be required to use the data analysis method to characterize background water quality and evaluate the extent to which the discharge affects groundwater quality.

The proposed Order requires the Discharger to submit in each annual report a list of crops irrigated with Mill Creek water in the past year. The Discharger would need to consult with farming entities that utilize Mill Creek water to compile the list. This requirement would ensure that the Regional Water Board is informed as to changes in cropping patterns that might necessitate a higher degree of wastewater treatment (i.e., filtration).

REOPENER

The conditions of discharge in the proposed Order were developed based on currently available technical information and applicable water quality laws, regulations, policies, and plans, and are intended to assure conformance with them. It may be appropriate to reopen the proposed Order if applicable laws and regulations change, but the mere possibility that such laws and regulations may change is not sufficient basis for reopening the Order. The CWC requires that waste discharge requirements implement all applicable requirements.

ANTIDEGRADATION

The discharges permitted herein are consistent with the State Antidegradation Policy, Resolution 68-16:

a. The City of Visalia certified an Environmental Impact Report for the expansion of the WWTF and the increase in discharge flows to 20 mgd. The EIR finds that expansion of the WWTF is necessary to accommodate increased housing and economic growth in the Visalia area consistent with the City's General Plan. Economic growth benefits the people of the State.

b. This Order contains effluent limitations, discharge specifications and receiving water limitations that implement Basin Plan water quality objectives.

c. While this Order allows an increase in the Discharge mass of pollutants to Mill Creek, requirements are not dependent upon assimilative capacity in the receiving water. The effluent concentration limits are as stringent as, or in some cases more stringent than, those in WDRs Order No. 97-061 and will not result in quality in Mill Creek that would be less than previously found to be consistent with water quality policies.

CEQA

The action to adopt an NPDES permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code Section 21000 et seq.), in accordance with CWC Section 13389.

In October of 1992, the Discharger certified a final Environmental Impact Report in accordance with the California Environmental Quality Act (Public Resources Code Section 21000, et seq.). Compliance with this Order will mitigate any impacts on water quality resulting from the increase in WWTF capacity.

GEA: 9/8/06